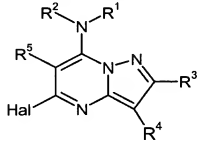
Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently amended) A pyrazolopyrimidine of the formula



(I)

in which

R^1 represents optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkinyl, optionally substituted cycloalkyl or ~~represents~~ optionally substituted heterocyclyl,

R^2 represents hydrogen or alkyl, or

R^1 and R^2 together with the nitrogen atom to which they are attached represent an optionally substituted heterocyclic ring,

R^3 represents hydrogen, halogen, optionally substituted alkyl or optionally substituted cycloalkyl,

R^4 represents halogen, cyano, nitro, alkyl, hydroxyalkyl, alkoxyalkyl, haloalkyl, cycloalkyl, formyl, thiocarbamoyl, alkoxycarbonyl, alkylcarbonyl, benzyl-carbonyl, cycloalkylcarbonyl, hydroximinoalkyl, alkoximinoalkyl, alkylthio, alkylsulfinyl, alkylsulfonyl or alkylaminocarbonyl,

Hal represents halogen and

R^5 represents alkyl, haloalkyl, alkenyl, haloalkenyl, cycloalkyl, halogen- or methyl-substituted cycloalkyl, cycloalkenyl or ~~represents~~ halogen- or methyl-substituted cycloalkenyl.

2. (Currently amended) The pyrazolopyrimidine of the formula (I) as claimed in claim 1 in which

R^1 represents alkyl having 1 to 6 carbon atoms which may be mono- to ~~pentaisubstituted~~ pentasubstituted by identical or different substituents selected from the group consisting of halogen, cyano, hydroxy, alkoxy having 1 to 4 carbon atoms and cycloalkyl having 3 to 6 carbon atoms, or

R^1 represents alkenyl having 2 to 6 carbon atoms which may be mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen, cyano, hydroxy, alkoxy having 1 to 4 carbon atoms and cycloalkyl having 3 to 6 carbon atoms, or

R^1 represents alkinyl having 3 to 6 carbon atoms which may be mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen, cyano, alkoxy having 1 to 4 carbon atoms and cycloalkyl having 3 to 6 carbon atoms, or

R^1 represents cycloalkyl having 3 to 6 carbon atoms which may be mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen and/or alkyl having 1 to 4 carbon atoms, or

R^1 represents saturated or unsaturated heterocyclyl having 5 or 6 ring members and 1 to 3 heteroatoms, ~~such as nitrogen, oxygen and/or sulfur,~~ where the heterocyclyl may be mono- or disubstituted by halogen, alkyl having 1 to 4 carbon atoms, cyano, nitro ~~and/or~~ or cycloalkyl having 3 to 6 carbon atoms,

R^2 represents hydrogen or alkyl having 1 to 4 carbon atoms, or

R^1 and R^2 together with the nitrogen atom to which they are attached represent a saturated or unsaturated heterocyclic ring having 3 to 6 ring members, where the heterocycle may contain a further nitrogen, oxygen or sulfur atom as a ring member and where the heterocycle may be substituted up to 3 times by fluorine, chlorine, bromine, alkyl having 1 to 4 carbon atoms ~~and/or~~ or haloalkyl having 1 to 4 carbon atoms and 1 to 9 fluorine and/or chlorine atoms,

R^3 represents hydrogen, fluorine, chlorine, bromine, iodine, alkyl having 1 to 4 carbon atoms, haloalkyl having 1 to 4 carbon atoms and 1 to 4 halogen atoms or ~~represents~~ cycloalkyl having 3 to 6 carbon atoms,

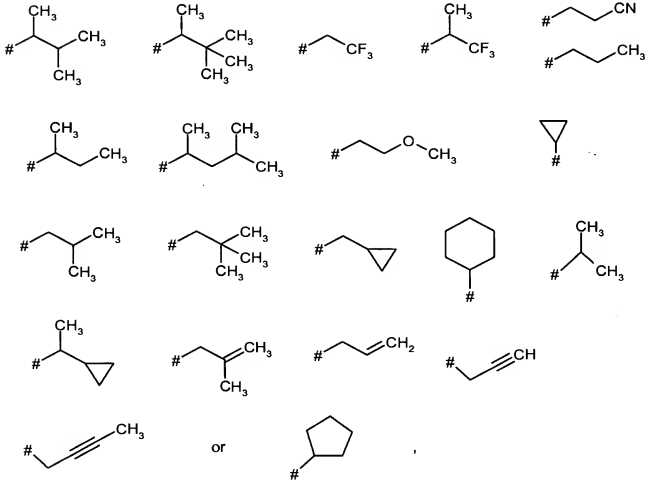
R^4 represents cyano, fluorine, chlorine, bromine, iodine, nitro, formyl, haloalkyl having 1 to 4 carbon atoms and 1 to 9 fluorine, chlorine or ~~and/or~~ bromine atoms, alkyl having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, alkoxyalkyl having 1 to 4 carbon atoms in the alkoxy moiety and 1 to 4 carbon atoms in the alkyl moiety, cycloalkyl having 3 to 6 carbon atoms, thiocarbomoyl, alkoxycarbonyl having 1 to 4 carbon atoms in the alkoxy moiety, alkylcarbonyl having 1 to 4 carbon atoms in the alkyl moiety, benzylcarbonyl, cycloalkylcarbonyl having 3 to 6 carbon atoms in the cycloalkyl moiety, hydroximinoalkyl having 1 to 4 carbon atoms in the alkyl moiety, alkoximinoalkyl having 1 to 4 carbon atoms in the alkoxy moiety and 1 to 4 carbon atoms in the alkyl moiety, alkylthio having 1 to 4 carbon atoms, alkylsulfinyl having 1 to 4 carbon atoms, alkylsulfonyl having 1 to 4 carbon atoms or ~~represents~~ alkyl-aminocarbonyl having 1 to 4 carbon atoms in the alkyl moiety,
Hal represents fluorine, chlorine or bromine and

R^5 represents alkyl having 1 to 6 carbon atoms, alkenyl having 2 to 6 carbon atoms, cycloalkyl having 3 to 8 carbon atoms, cycloalkenyl having 3 to 8 carbon atoms, haloalkyl having 1 to 6 carbon atoms and 1 to 5 fluorine, chlorine or ~~and/or~~ bromine atoms, haloalkenyl having 2 to 6 carbon atoms

and 1 to 5 fluorine, chlorine or ~~and/or~~ bromine atoms, cycloalkyl which has 3 to 8 carbon atoms and is substituted by 1 to 3 fluorine, chlorine or ~~and/or~~ bromine atoms or ~~represents~~ cycloalkenyl which has 3 to 8 carbon atoms and is substituted by 1 to 3 fluorine, chlorine or ~~and/or~~ bromine atoms.

3. (Currently amended) The pyrazolopyrimidine of the formula (I) as claimed in claim 1 ~~or 2~~ in which

R^1 represents a radical of the formula



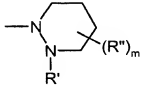
where # denotes the point of attachment,

R^2 represents hydrogen, methyl, ethyl or propyl, or

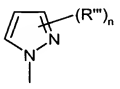
R^1 and R^2 together with the nitrogen atom to which they are attached represent pyrrolidinyl, piperidinyl, morpholinyl, thiomorpholinyl, piperazinyl, 3,6-dihydro-1(2H)-piperidinyl or tetrahydro-1(2H)-pyridazinyl, where these radicals may be substituted by 1 to 3 fluorine atoms, 1 to 3 methyl groups or ~~and/or~~ trifluoromethyl,

or

R^1 and R^2 together with the nitrogen atom to which they are attached represent a radical of the formula



or



in which

R' represents hydrogen or methyl,

R" represents methyl, ethyl, fluorine, chlorine or trifluoromethyl,

m represents the numbers 0, 1, 2 or 3, where R" represents identical or different radicals, if m represents 2 or 3,

R"' represents methyl, ethyl, fluorine, chlorine or trifluoromethyl

and

n represents the numbers 0, 1, 2 or 3, where R"' represents identical or different radicals if n represents 2 or 3,

R^3 represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl,

trifluoromethyl, 1-trifluoromethyl-2,2,2-trifluoroethyl or heptafluoroisopropyl,

R^4 represents cyano, fluorine, chlorine, bromine, iodine, nitro, formyl, trifluoromethyl, difluoromethyl, chloromethyl, methyl, ethyl, cyclopropyl, thiocarbamoyl, methoxycarbonyl, methylcarbonyl, ethylcarbonyl, benzylcarbonyl, cyclopropylcarbonyl, cyclopentylcarbonyl, cyclohexylcarbonyl, hydroximinomethyl, methoximinomethyl, methylthio, methylsulfinyl, methylsulfonyl, methylaminocarbonyl, hydroxymethyl, hydroxyeth-1-yl, methoxymethyl, ethoxymethyl or 1-methoxyethyl,

Hal represents fluorine or chlorine and

R^5 represents alkyl having 1 to 4 carbon atoms, alkenyl having 2 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms or cycloalkenyl having 3 to 7 carbon atoms, or

R^5 represents haloalkyl having 1 to 4 carbon atoms and 1 to 5 fluorine, chlorine or ~~and/or~~ bromine atoms, haloalkenyl having 3 or 4 carbon atoms and 1 to 3 fluorine, chlorine or ~~and/or~~ bromine atoms, cycloalkyl which has 3 to 6 carbon atoms and substituted by 1 to 3 fluorine, chlorine or ~~and/or~~ bromine atoms or ~~represents~~ cycloalkenyl which has 3 to 6 carbon atoms and is substituted by 1 to 3 fluorine, chlorine or ~~and/or~~ bromine atoms.

4. (Currently amended) The pyrazolopyrimidine of the formula (I) as claimed in ~~one or more of claims~~ claim 1 ~~to 3~~, in which

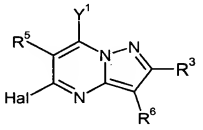
R^3 represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl, propyl, isopropyl, trifluoromethyl or cyclopropyl and

R^5 represents methyl, ethyl, propyl, isopropyl, n-butyl, i-butyl, sec-butyl, tert-butyl, allyl, but-2-en-1-yl, cyclopropyl, cyclopentyl, cyclohexyl, cyclopentenyl, cyclohexenyl, chloromethyl, trifluoromethyl,

trifluoroisopropyl, trichloroallyl, 2,2-dichlorocyclopropyl or dichlorocyclohexenyl.

5. (Currently amended) A process for preparing pyrazolopyrimidines of the formula (I) as claimed in ~~one or more of claims~~ claim 1 ~~to 4~~, comprising ~~characterized in that~~

(a) reacting halopyrazolopyrimidines of the formula



(II)

in which

R^3, R^5 and Hal are as defined in claim 1,

R^6 represents halogen, cyano, nitro, alkyl, haloalkyl, cycloalkyl, formyl, thiocarbamoyl, alkoxycarbonyl, alkylthio, alkylsulfinyl, alkylsulfonyl or alkylaminocarbonyl and

Y^1 represents halogen,

~~are reacted~~ with amines of the formula

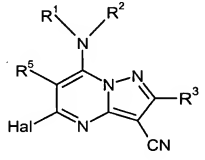
in which

R^1 and R^2 are as defined in claim 1,

~~if appropriate~~ optionally in the presence of a diluent, ~~if appropriate~~ optionally in the presence of an acidic receptor and ~~if appropriate~~ optionally in the presence of a catalyst,

or

b) reacting pyrazolopyrimidines of the formula



(Ia)

in which

R^1, R^2, R^3, R^5 and Hal are as defined in claim 1

~~are~~ with either

α) ~~reacted with~~ diisobutylaluminum hydride in the presence of aqueous ammonium chloride solution and in the presence of an organic diluent,

or

β) ~~reacted with~~ Grignard compounds of the formula

$$R^7 - Mg - X^2 \qquad (IV)$$

in which

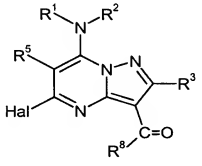
R^7 represents alkyl, benzyl or cycloalkyl and

X^2 represents chlorine, bromine or iodine,

in the presence of a diluent and, optionally ~~if appropriate~~, in the presence of a catalyst,

or

c) reacting pyrazolopyrimidines of the formula



(Ib)

in which

(a) R^1, R^2, R^3, R^5 and Hal are as defined above and

R^8 represents hydrogen, alkyl, benzyl or cycloalkyl,

~~are~~ with either

α) ~~reacted with~~ amino compounds of the formula

$$H_2N\text{-}OR^9 \qquad (V)$$

in which

R^9 represents hydrogen or alkyl,

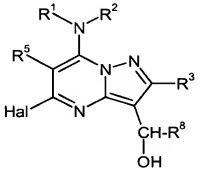
in the presence of a diluent and, optionally ~~if appropriate~~, in the presence of a catalyst, where the amino compounds of the formula (V) can also be employed in the form of their acid addition salts,

or

β) ~~reacted with~~ diisobutylaluminum hydride in the presence of aqueous ammonium chloride solution and in the presence of an organic diluent,

or ~~reacted with~~ sodium borohydride in the presence of a diluent,

and reacting the resulting pyrazolopyrimidines of the formula



in which

R^1, R^2, R^3, R^5 R^8 and Hal are as defined above

~~are, if appropriate, reacted~~ with alkylating agents of the formula

$$R^{10} - X^1$$

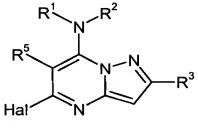
in which

R^{10} represents alkyl and

X^1 represents chlorine, bromine, iodine or the radical $R^8O\text{-}SO_2\text{-}O$-,

~~if appropriate~~ optionally in the presence of a base and in the presence of a diluent,

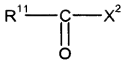
d) reacting pyrazolopyrimidines of the formula



in which

R^1, R^2, R^3, R^5 and Hal are as defined above

~~are reacted~~ with acid halides of the formula



(VIII)

in which

R^{11}

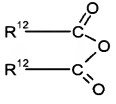
represents alkyl, benzyl or cycloalkyl and

X^2

represents chlorine or bromine,

or

with acid anhydrides of the formula



(IX)

in which

R^{12} represents alkyl,

in each case in the presence of a catalyst and in the presence of a diluent.

6. (Currently amended) A composition for controlling unwanted microorganisms, ~~characterized in that it comprises~~ comprising at least one pyrazolopyrimidine of the

formula (I) according to ~~one or more of claims~~ claim 1 ~~to 4~~, ~~in addition to its~~ and extenders or ~~and/or~~ surfactants.

7. (Original) The composition as claimed in claim 6, comprising at least one further fungicidally or insecticidally ~~insectidally~~ active compound.

8. (Canceled).

9. (Currently amended) A method for controlling unwanted microorganisms, ~~characterized in that~~ comprising contacting unwanted microorganisms or their habitat with pyrazolopyrimidines of the formula (I) as claimed in ~~one or more of claims~~ claim 1 ~~to 4 are applied to the unwanted microorganisms and/or their habitat~~.

10. (Currently amended) A process for preparing compositions for controlling unwanted microorganisms, ~~characterized in that~~ comprising mixing a ~~pyrazolopyrimidines~~ pyrazolopyrimidine of the formula (I) as claimed in ~~one or more of claims~~ claim 1 ~~to 4 are mixed~~ with extenders or ~~and/or~~ surfactants.